

Potential Customers Specific Problems

Contract #: NAS5-01165

Firm Name: Aeptec Microsystems, Inc.

Contract Specialist: J. Smith 301-386-1111

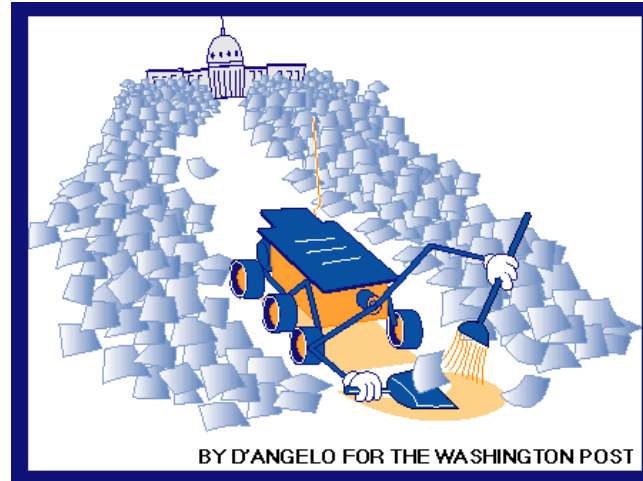
COTR: K. Green 301-386-3333

ATR: G. White 301-386-4444

NASA SBIR/STTR Technologies Management



Using Electronic Handbooks (Where Shakespeare Meets Freud)



Dr. Barry E. Jacobs
NASA/GSFC

Objective:

Develop Internet-based tools to support the paperless documentation and management of complex distributed processes.

Subprocesses - Mozilla Firefox

file:///E:/Intro/whatare/process.htm

CNN Wash Post NY Times Scoreboards Horoscope ZDNet Bandwidth Comcast Summaries Google News TV Guide ESPN Chicago Tribune

Google Search PageRank Check AutoLink Options

NASA SBIR/STTR Technologies

Product Realization Subprocesses													
Integrated Problems-Solutions Database	Solicitation Development	I Submission	I Review & Selection	I Contract Negotiation & Award	I Contract Administration	I Contract Closeout	II Submission	II Review & Selection	II Contract Negotiation & Award	II Contract Administration	II Contract Closeout	III Award	Post-Closeout

Product Distribution Subprocesses							
Integrated Problems-Solutions Database	Technology Transfer Facility Guidelines Document Development	Problem Submission	Problem Review & Selection	Agreement Negotiation	Agreement Administration	Agreement Closeout	Post-Agreement Closeout

Support Subprocesses										
SBIR/STTR Level I, Other SBIR/STTR Agencies, and SBA Support	Computer Systems Development and Evolution	Computer Systems Operations and Network Administration	Home Page Management	Education and Outreach Activities	Facilities Management	Security	Small Systems (Mac and PC) Support	Visualizations	Program Support Reporting	Quality Assurance

Improvement Subprocesses		
ISO 9001: 2000	CMMI- Staged	CMMI- Continuous

Common Subprocesses				
Organization Subprocess Formulation	Organization Subprocess Implementation	Organization Subprocess Customer Support	Organization Subprocess Evaluation	Organization Subprocess Closeout

Done

Organizations provide different views of the subprocesses.

NASA SBIR/STTR Organizations

Technology Development Organizations
ARC SBIR Office
DFRC SBIR Office
GRC SBIR Office
GSFC SBIR Office
HQ SBIR Office
JPL SBIR Office
JSC SBIR Office
KSC SBIR Office
LaRC SBIR Office
MSFC SBIR Office
Office of Exploration Systems SBIR Offices
Office of Aeronautics Research SBIR Offices
Office of Science SBIR Offices
Office of Space Operations SBIR Offices
SBIR PMO Office
SSC SBIR Office

Technology Transfer Organizations
ARC TCO
DFRC TCO
Far West-RTTC
GRC TCO
GSFC TCO
HQ ITTP Office
JPL TCO
JSCTCO
KSC TCO

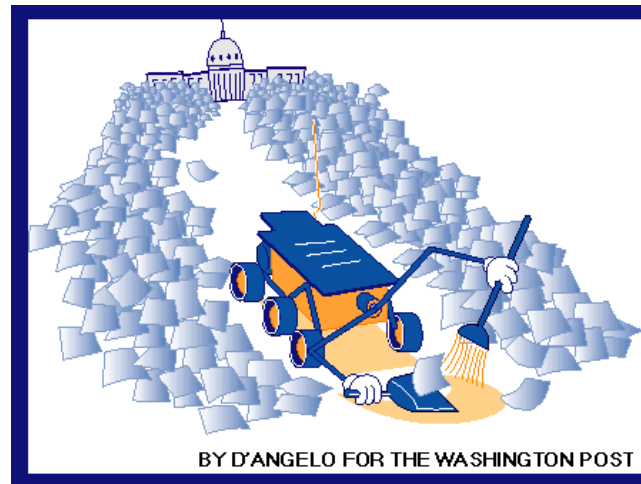
Basic Principles

- **Processes determine tools.** Tools should help people do their jobs as they see it. Forcing additional tools on people only adds more burdens to their jobs and they will likely ignore them. Additional requirements should be integrated into existing processes.
- **Everyone's processes should be supported as best as possible.** Organizations see their jobs differently which is often a good thing for process improvement. Tools should facilitate rather than hinder this creativity. At the same time, tools should provide underlying mechanisms for unified multi-Organization data collection.
- **Tools are role-based so that data is collected during process execution.** As people partake in the processes, the data is automatically entered in the system. If data collection is done after the fact, the quality of the data generally suffers.
- **Tools are people-based so that users require minimal training.** Determining which steps to use in the tool should be obvious. For each of the substeps (i.e., forms and documents), there should be clear templates, instructions, and samples.
- **Tools are web-based so that all users can easily partake.** The effort needed to install special software on user's computers can take up an enormous amount of resources. This is especially the case if the number of participants is large.
- **Everyone helps build the tools.** Joint ownership in the processes and the underlying systems is crucial for overall acceptance.

NASA Datasets Management Using Electronic Handbooks



(Where Shakespeare Meets Freud)



Dr. Barry E. Jacobs
NASA/GSFC

Objective:

Develop Internet-based tools to support the paperless documentation and management of complex distributed processes.

Subprocesses - Mozilla Firefox

http://ehbs.org/data/whatare/process.htm

Datasets

Product Realization Subprocesses*

Integrated Problems-Solutions Database	Datasets Development Facility Solicitation Development	Producer-Datasets Development Facility Interfaces	Production and Preservation
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Product Distribution Subprocesses*

Integrated Problems-Solutions Database	Distributor Guidelines Document Development	Problem Submission	Problem Review & Selection	Agreement Negotiation	Agreement Administration	Agreement Closeout	Post-Agreement Closeout
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Support Subprocesses

Survey Management	Computer Systems Development and Evolution	Computer Systems Operations and Network Administration	Home Page Management	Education and Outreach Activities	Facilities Management	Security	Small Systems (Mac and PC) Support	Visualizations
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Improvement Subprocesses

ISO 9001: 2000	CMMI- Staged	CMMI- Continuous
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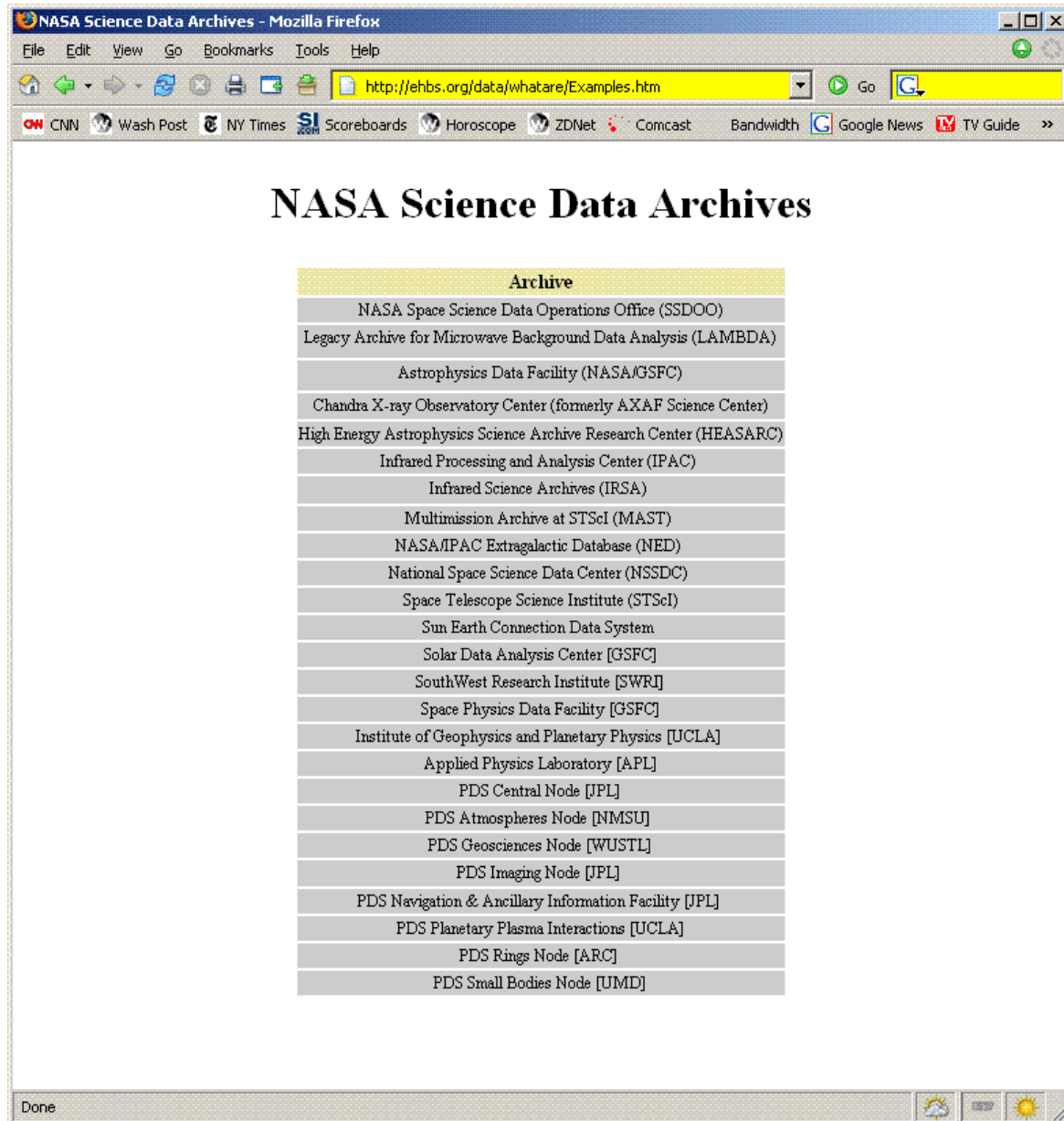
Common Subprocesses

Organization Subprocess Formulation	Organization Subprocess Implementation	Organization Subprocess Customer Support	Organization Subprocess Evaluation	Organization Subprocess Closeout
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*Based on Consultative Committee for Space Data Systems: [Reference Model for an Open Archival Information System \(OAIS\)](#) and [Producer-Distribution Interface Methodology Abstract Standard](#)

Done

Organizations provide different views of the subprocesses.



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NASA Flight Projects Management Using Electronic Handbooks (Where Shakespeare Meets Freud)



Dr. Barry E. Jacobs
NASA/GSFC

Objective:

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Subprocesses - Mozilla Firefox

http://ehbs.org/flightprojects/whatare/process.htm

Flight Projects

Product Realization Subprocesses*

Integrated Problems-Solutions Database	Pre-Phase A: Project Concept Studies	Phase A: Project Preliminary Analysis	Phase B: Project Definition	Phase C: Project Design	Phase D: Project Development	Phase E: Project Operations	Phase F: Project Disposal
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Product Distribution Subprocesses

Integrated Problems-Solutions Database	Distributor Guidelines Document Development	Problem Submission	Problem Review & Selection	Agreement Negotiation	Agreement Administration	Agreement Closeout	Post-Agreement Closeout
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Support Subprocesses

Survey Management	Computer Systems Development and Evolution	Computer Systems Operations and Network Administration	Home Page Management	Education and Outreach Activities	Facilities Management	Security	Small Systems (Mac and PC) Support	Visualizations
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Improvement Subprocesses

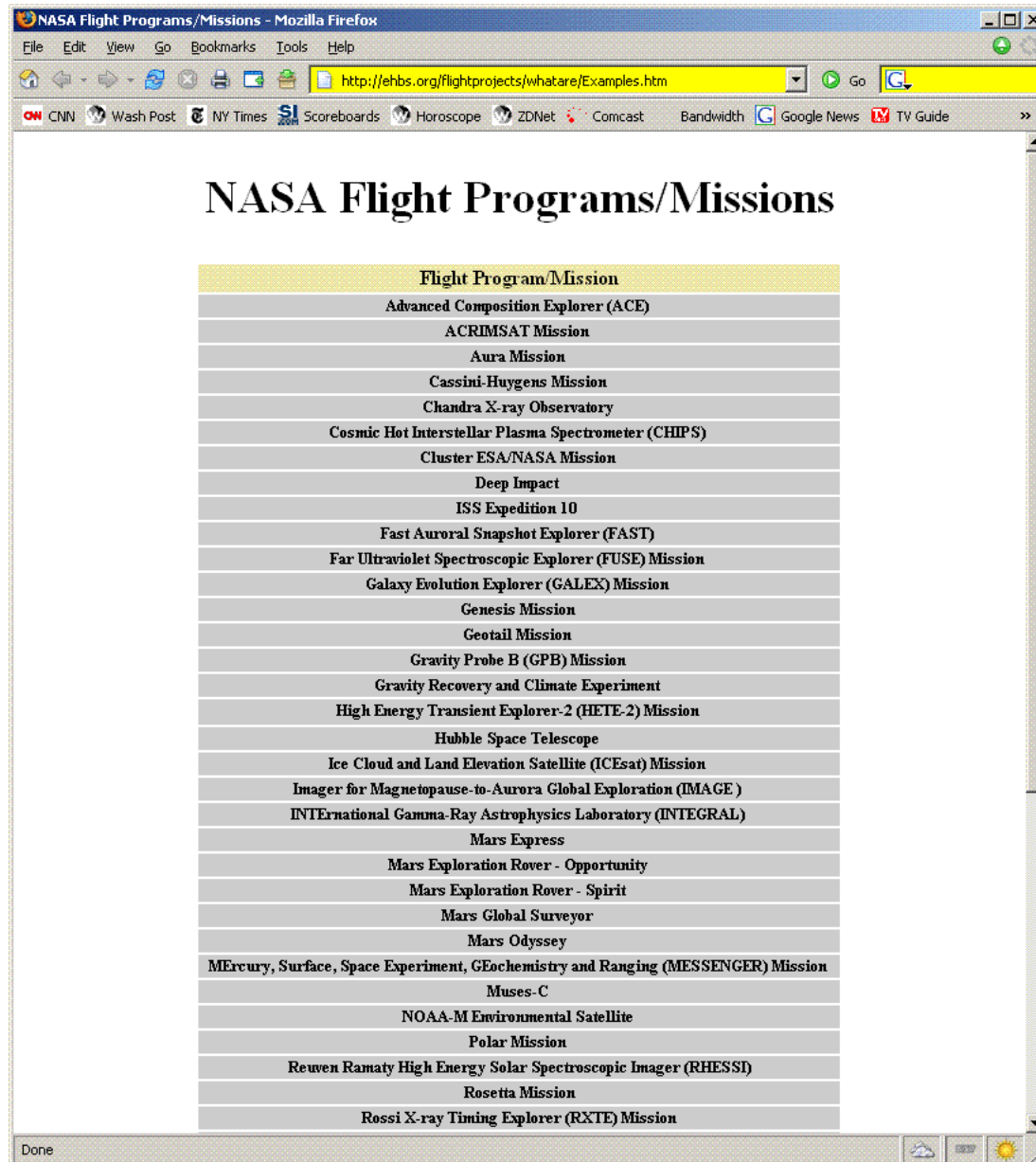
ISO 9001: 2000	CMMI- Staged	CMMI- Continuous
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Common Subprocesses

Organization Subprocess Formulation	Organization Subprocess Implementation	Organization Subprocess Customer Support	Organization Subprocess Evaluation	Organization Subprocess Closeout
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*Based on NPG 7120.5B ([Outline](#); [PDF](#); [PPT](#));
[GSFC Project Life Cycle](#); [Code S \(OSS\) Handbook](#);
[Code T Project Life Cycle](#);

Organizations provide different views of the subprocesses.



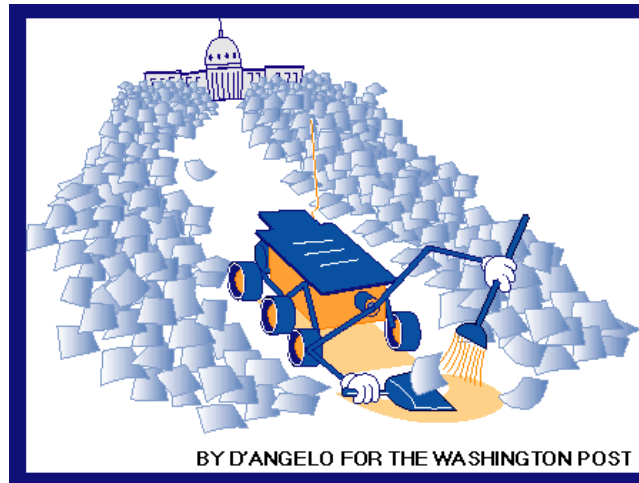
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NASA Research Management Using Electronic Handbooks

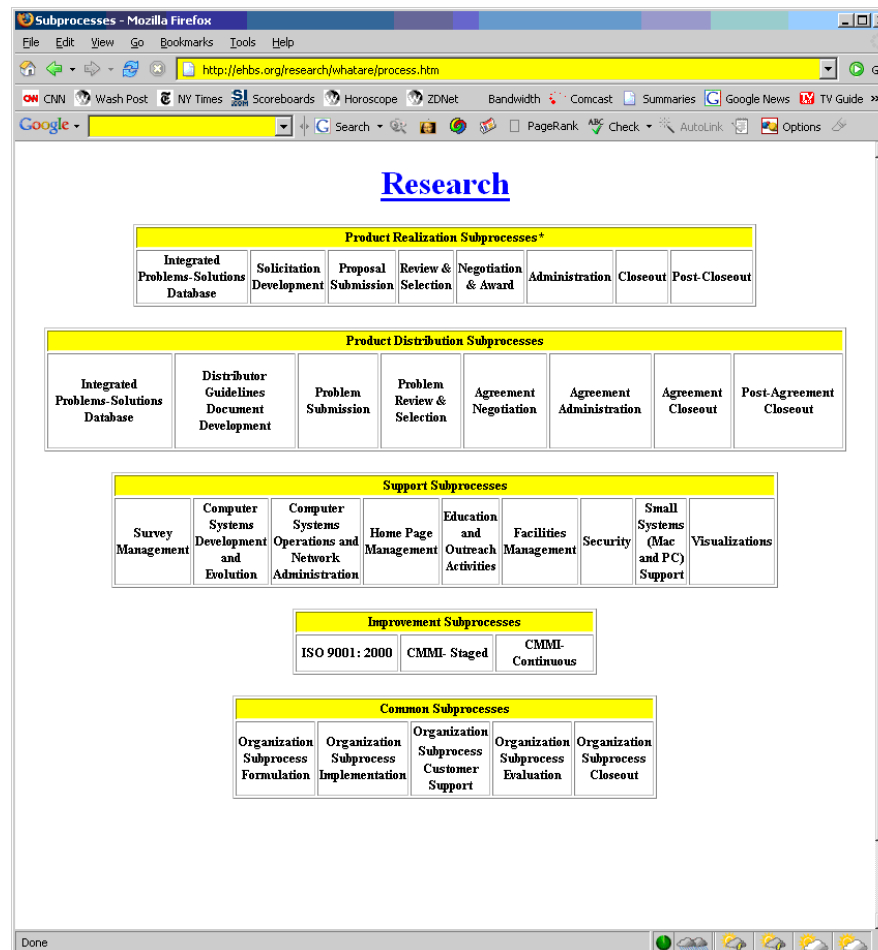
(Where Shakespeare Meets Freud)



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NASA/GSFC

Objective:

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Organizations provide different views of the subprocesses.

NASA Science Research Programs - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://ehbs.org/research/whatare/Examples.htm

CNN Wash Post NY Times Scoreboards Horoscope ZDNet Comcast Bandwidth Google News TV Guide

NASA Science Research Programs

Program
ASCA Guest Observer Program
Astrophysics Data Program (ADP)
Constellation Technology Development
Experimental Program to Stimulate Competitive Research (EPSCoR)
EUVE Episode 7
Extreme Ultraviolet Explorer Research Program
GLAST Program Technology Development and Demonstration
Graduate Student Researchers Program 2000
HST Cycle Call for Proposals
Initiative to Develop Education through Astronomy and Space Science (IDEAS) Research Grants
Life in Extreme Environments (LEExEn)
Mars Exploration Concepts
NASA IRTF Observing Time
NASA Observing Time at the Keck Observatory
New Millennium Program ST6 Technology Announcement
Pre-Phase A Studies for Scientific Instrumentation Concepts for the Next Generation Space Telescope (NGST)
Rossi XTE Cycle
SIRTF Legacy Science Program (Final)
Space Physics New Mission Concepts Program
Sun-Earth Connection Supporting Research and Technology Suborbital Guest Investigator and Education Programs
NASA IRTF Observing Time (August 2000 - January 2001)

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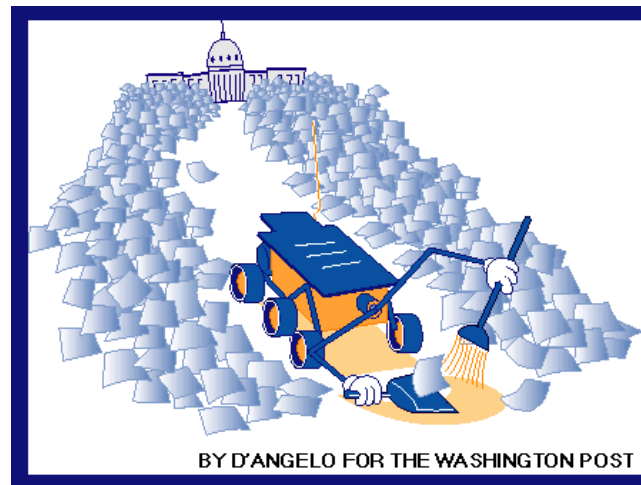
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NASA Technologies Management Using Electronic Handbooks

(Where Shakespeare Meets Freud)



Dr. Barry E. Jacobs
NASA/GSFC

Objective:

Develop Internet-based tools to support the paperless documentation and management of complex distributed processes.

Subprocesses - Mozilla Firefox

http://ehbs.org/techs/whatare/process.htm

Technologies

Product Realization Subprocesses

Integrated Problems-Solutions Database	Solicitation Development	Proposal Submission	Review & Selection	Negotiation & Award	Administration	Closeout	Post-Closeout
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Product Distribution Subprocesses

Integrated Problems-Solutions Database	Technology Transfer Facility Guidelines Document Development	Problem Submission	Problem Review & Selection	Agreement Negotiation	Agreement Administration	Agreement Closeout	Post-Agreement Closeout
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Support Subprocesses

Survey Management	Computer Systems Development and Evolution	Computer Systems Operations and Network Administration	Home Page Management	Education and Outreach Activities	Facilities Management	Security	Small Systems (Mac and PC) Support	Visualizations
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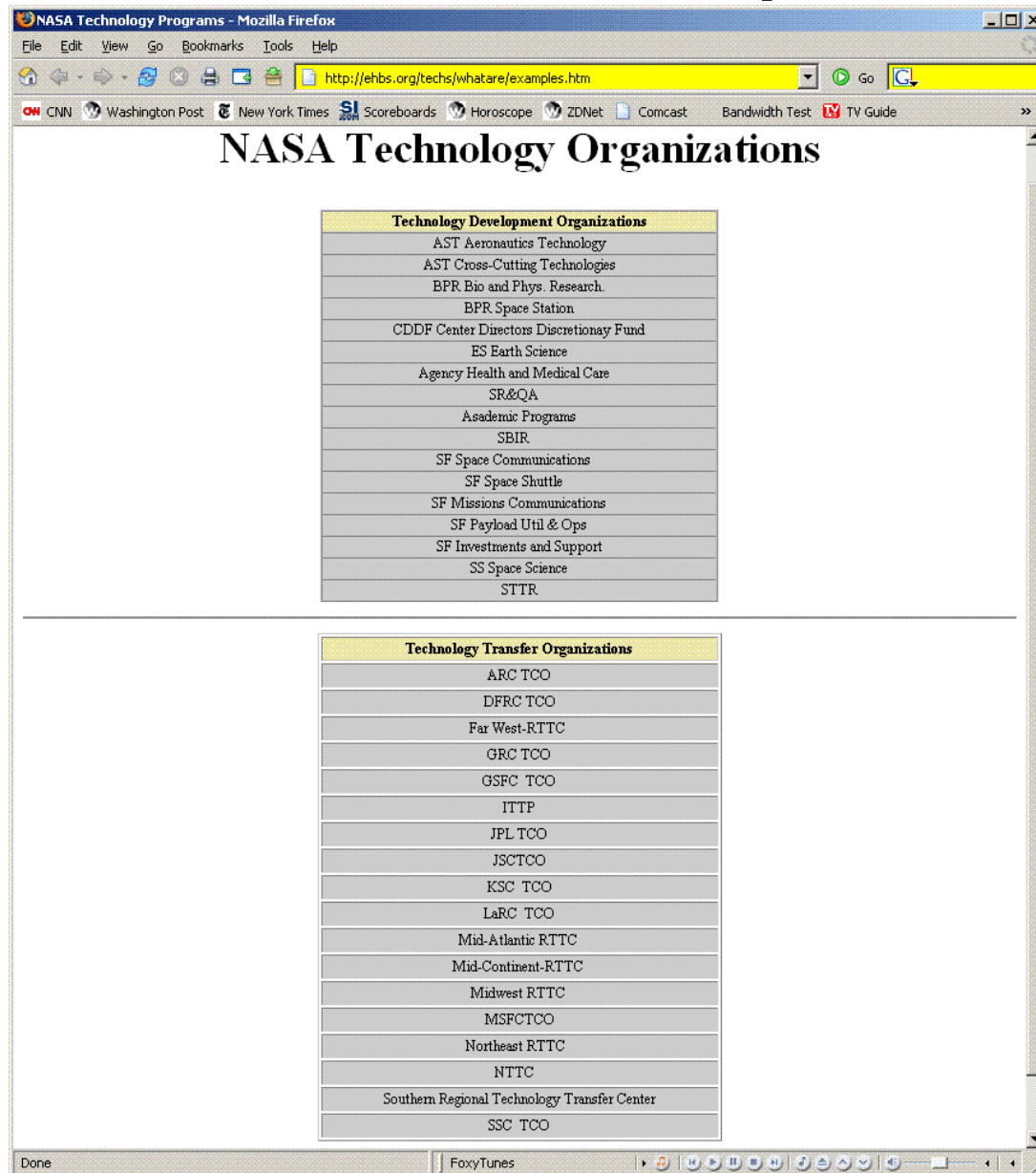
Improvement Subprocesses

ISO 9001:2000	CMMI- Staged	CMMI- Continuous
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Common Subprocesses

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